

Strangles in Equine

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Strangles is among the oldest most important diseases of equine. The name comes from the horse making strangled breathing sounds resulting from enlarged lymph nodes of the neck and head (Fig. 1). Strangles can affect horses, donkeys and mules of all ages, but usually those younger than two years of age. Foals younger than four months are usually protected by passive immunity through the colostrum.

Transmission

Strangles is a highly contagious upper respiratory infection caused by a bacterium, *Streptococcus equi*. The disease is spread via nasal secretions (sneezing, coughing, nose-to-nose contact) and pus of draining abscesses. Flies and contaminated equipment, such as water buckets or troughs, feed, stalls, fences, tack, and pitchforks, can also transmit bacteria. A person handling an infected horse can carry the organism on clothing, boots, or unwashed hands.

S. equi bacteria can survive for weeks in water troughs, but dies quickly in pasture and soil. The bacterium can also remain viable in frozen discharges. Approximately

20 percent of horses shed the bacteria for a month after all clinical signs are gone.

Factors contributing to strangles outbreaks include:

- Crowded conditions
- Inadequate housing
- Poor sanitation
- Inadequate nutrition
- Stress from lengthy transportation
- New animal additions

Incubating or recovered (but shedding) equine attending shows and sales are frequent sources of infection. Mares entering and leaving breeding farms can also carry the disease.

Incubation Period

The incubation period can be as short as four days to five days or as long as 12 days to 14 days after exposure. Incubation depends on climatic conditions and overcrowding of animals (too many horses in a small pen).

Clinical Signs

Initial signs are usually mild lethargy or depression; slight cough; fever of 102 F to 103 F; clear, watery nasal discharge that quickly changes to thick and yellow; trouble swallowing; loss of appetite; and enlarged lymph nodes in the lower jaw. Occasionally a horse may stand with its neck extended because of pain in the throat area.

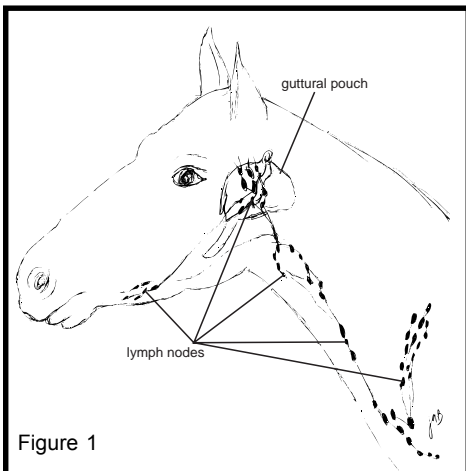


Figure 1

As the swelling progresses the infection usually abscesses, then drains of the highly infectious pus within one week to two weeks after initial clinical signs. Without complications, recovery begins. Occasionally abscesses spread to other parts of the body (lungs, liver or brain), commonly known as “bastard strangles.”

Older animals with some immunity may exhibit a mild form of the disease, with only a cough, mild fever and nasal discharge.

Diagnosis

Diagnosis of strangles is accomplished through culture of nasal swabs, nasal washes or pus from the abscesses.

Nasal washes are more sensitive in detecting small numbers of organisms. Culture of nasal swabs may not detect organisms hiding in the guttural pouch of an apparently normal horse recovering from strangles.

Serology (blood tests) is not useful in detecting infection, except for possibly bastard strangles.

Treatment

Horses should be isolated to stop the spread of strangles. An animal with an unknown health history should be isolated from four weeks to five weeks—the time generally required for full recovery.

Treatment centers around supportive care of the animal:

- Keep the horse warm and dry;
- Provide soft food;
- Monitor horse’s temperature;
- Apply hot compresses to abscessed lymph nodes to promote rupture and drainage; and
- Flush draining tracks with dilute povidone-iodine solution (Betadine).

Antibiotic therapy is controversial. An exposed animal not exhibiting signs may benefit. However, when lymph nodes are infected antibiotics tend to slow the maturing and draining of abscesses, thus prolonging infection.

Control and Prevention

Strangles outbreaks are more frequent when a new animal incubating the disease or recovering and still shedding the organism is introduced. Practical biosecurity measures are the best means of prevention:

- Quarantine new horse arrivals;
- Avoid mingling with other horses at shows and other events;
- Avoid sharing water buckets and equipment;
- Vaccinate to reduce the severity and spread of strangles. NOTE: Vaccine use will not prevent the disease. Vaccination is not advised for equine incubating the organism.
- Provide clean, dry housing; and
- Practice good sanitation.

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